What is claimed is:

1) A carrier device (1) for a biological preparation (5) which can be cut by laser microdissection and which is located on a freely suspended, laser light-absorbing film (3) mounted on a frame-like holder,
wherein the frame-like holder is substantially in the form of a wall (2) of a petri dish whose bottom is completely or partially omitted; and
the missing bottom is replaced exclusively by the laser light-absorbing film (3).

2) The carrier device (1) as recited in Claim 1,
wherein the entire bottom of the petri dish is formed by the laser light-absorbing film (3).

3) The carrier device (1) as recited in Claim 1,
wherein the laser light-absorbing film (3) is a polyethylene naphtalate film (PEN).

4) The carrier device (1) as recited in Claim 1,
wherein the polyethylene naphtalate film has a thickness of 1.35 μm or 2.5 μm.

5) The carrier device (1) as recited in Claim 1,
wherein the laser light-absorbing film (3) is welded to the wall (2) of the petri dish.

6) The carrier device (1) as recited in Claim 1,
wherein the wall (2) of the petri dish and the laser light-absorbing film (3) are adhesively bonded together.

7) The carrier device (1) as recited in Claim 6,
wherein bonding is accomplished with an adhesive film (8) in the form of a template in such manner that that the adhesive film (8) is bonded on one side to the cylindrical wall (2) and, on the other side, to the laser light-absorbing film (3).

8) The carrier device (1) as recited in Claim 1,
wherein the wall (2) of the petri dish is cylindrical in shape; and
the film (3) is applied to a ring-shaped holding member (10) in a preliminary process using welding or adhesive bonding techniques; the ring-shaped holding member having a diameter

that is matched to the cylindrical wall (2) of the petri dish, and further having a snap-in groove (11) that allows the wall (2) of the petri dish to snap into the ring-shaped holding member (10), resulting in a liquid-tight releasable connection between the wall (2) of the petri dish and the ring-shaped holding member (10) provided with the laser-cuttable film bottom (3).

9) The carrier device (1) as recited in one of the preceding claims,
wherein the laser light-absorbing film (3) is made hydrophilic.

10) The carrier device (1) as recited in one of the preceding claims,
wherein the laser light-absorbing film (3) carries a nutrient medium for cell culture.

11) The carrier device (1) as recited in Claim 10,
wherein the nutrient medium is in the form of a nutrient liquid.

12) The carrier device (1) as recited in Claim 11,
wherein the nutrient medium is in the form of a nutrient gel.

13) The use of a laser microdissection device for laser microdissection of living biological cell cultures in which device a cutting, focused laser beam (17) is directed through an objective (19) onto a biological preparation (5) from above; a preparation region of interest being encircled by a complete cut line and separated from its surrounding area,
wherein a preparation (5) in the form of a living biological cell culture is located on a laser light-absorbing film (3) mounted on a frame-like holder; the frame-like holder being substantially in the form of a wall (2) of a petri dish, and the laser light-absorbing film (3) forming the bottom of the petri dish.

14) A laser microdissection method for separating a preparation region of interest from a living biological preparation; the preparation region of interest being cut out by a laser beam producing a cut line,
wherein
- the living biological preparation (5) is located on a freely suspended laser light-absorbing film (3) mounted on a frame-like holder; the frame-like holder being substantially

in the form of a wall (2) of a petri dish, and the laser light-absorbing film (3) forming the bottom of the petri dish; and

- the preparation region of interest falls into a collection container located underneath after the cut line is completed.